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Goodrich Pump & Engine Control Systems, Inc.

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

DEBORAH GETZ, et al.

Plaintiffs,

vs.

THE BOEING COMPANY, et al.

Defendants.

No. CV 07-06396 CW

**JOINDER AND REPLY OF DEFENDANT  
GOODRICH PUMP & ENGINE  
CONTROL SYSTEMS, INC., IN  
SUPPORT OF DEFENDANT  
HONEYWELL INTERNATIONAL INC.'S  
MOTION TO DISMISS PLAINTIFFS'  
COMPLAINT**

Hearing Date: June 19, 2008

Time : 2:00 p.m.

Courtroom : 2

Judge : Hon. Claudia Wilkin

Defendant Goodrich Pump & Engine Control Systems, Inc. ("Goodrich") hereby joins in the Reply filed by defendant Honeywell International Inc. in support of its Motion to Dismiss Plaintiffs' Complaint, and further submits this Reply with the following memorandum in support of the same motion to dismiss.

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Defendant Goodrich's Joinder and Reply

## INTRODUCTION

Plaintiffs believe they can litigate a product liability lawsuit on some theoretical level, in which factual context and surrounding circumstances are ignored. They of course take this position to avoid application of the political question doctrine. But context is as inextricable to the case as the political questions it presents.

This is indisputably not a lawsuit by mere “private plaintiffs” (Plaintiff Opp. to Honeywell Motion to Dismiss, at 13:12) that only “touches” upon military decisions (*id.* at 23:19). The plaintiffs are all members of the United States Armed Forces, or their representatives, who were injured in the course of a wartime combat mission. As detailed in the U.S. Army’s informal investigation report that Plaintiffs attach to their opposition brief, if this lawsuit proceeds past the pleading stage, it will necessarily require this court to evaluate and make findings regarding myriad military decisions and strategy. The political question doctrine requires a federal court to abstain from such inquiry.

Indeed, Plaintiffs overlook the scope of their own *prima facie* case. They argue that because they are not suing the United States<sup>1</sup>, nor criticizing military policy, that therefore this Court need not concern itself with any issue other than whether a design or manufacturing defect caused the crash. To recover, however, Plaintiffs obviously must eliminate other causes, apart from the alleged product defect, and the elimination of other causes squarely raises political questions relating to military strategy, equipment, orders to pilots, orders regarding troop movement, all of which arise from a combat mission in wartime.<sup>2</sup> Courts have no power to review these decisions.

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<sup>1</sup> Plaintiffs are barred from suing the government for injuries suffered incident to military service. *Feres v. United States*, 340 U.S. 135, 71 S. Ct. 1153, 95 L. Ed. 152 (1950).

<sup>2</sup> Although no choice of law determination has been made, see generally and e.g. 6 Witkin, Summary of Cal. Law, Torts § 1526, at 986 (10th ed. 2005) (“Causation is as necessary an element of strict liability as it is of negligence liability; hence, the general rules of proximate cause apply”)

**A. Army Investigation Report Confirms That Political Questions Are Unavoidable.**

None of the defendants, including Goodrich, had the Army's informal investigation report until it was served by Plaintiffs with their opposition brief last week. As summarized below, the Army report confirms that Plaintiffs' case is not justiciable because this case cannot be adjudicated without evaluating, and second-guessing, numerous military acts and decisions.<sup>3</sup>

- Although plaintiffs seem reluctant even to admit a connection to war, it is beyond dispute that the accident occurred during "Operation Enduring Freedom", a military operation led by and involving 19,000 U.S. Forces that began in October 2001 to counter terrorism in Afghanistan. (U.S. Dept. of State, Fact Sheet: Operation Enduring Freedom, Jan. 31, 2006, available at <http://www.state.gov/r/pa/prs/ps/2006/60083.htm>, and copy appended for convenience)
- Plaintiffs also shy away from the nature of the mission that gives rise to the accident, and they distort the meaning of "combat." It is equally beyond dispute, however, that the accident occurred during "combat operations." (Army Regulation 15-6 Letter of Appointment, attached as Ex. A to Declaration of Thomas Brandi in Support of Plaintiffs' Opposition (hereinafter "Plaintiffs' Ex. A"), Docket Entry No. 80-5, p. 64 of 66 ("... to conduct an informal investigation into the aircraft mishap of [redacted by military] during combat operations in Afghanistan on 17 February 2007..."); *see also id.* at p. 9 of 66 ("Mission /Purpose: Conduct tactical offset INFIL [infiltration] [redacted by military] forces and tactical EXFIL [exfiltration] of all ground forces ISO [in search of] OBJ [object] [redacted by military] RTB to [redacted by military] for ROD and return to BAF on 17 FEB"; *see also* Plaintiffs' Ex. A, Docket Entry No. 80-6, p. 7 of 63 ("Mission was to drop off personnel to capture/kill someone in the al-Qaeda network").

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<sup>3</sup> Goodrich does not necessarily agree with nor adopt all findings and opinions contained in the Army's informal investigation report.

- 1 • The tactical assault mission in question included three MH-47E Chinook helicopters,  
2 operated by the U.S. Army Special Operations Aviation Regiment, that carried a total of 64  
3 soldiers and crew. (Plaintiffs' Ex. A, Docket Entry No. 80-5, p. 10 of 66). The subject  
4 mission had four distinct phases: "PRE-MISSION", "EN-ROUTE", "ACTIONS ON OBJ",  
5 AND "RETURN/POST MSN." (*Id.*) The "complexity and coord[] of ISR/CAS assets for a  
6 very high threat environment" was stressed in the mission briefing. (Plaintiffs' Ex. A,  
7 Docket Entry No. 80-6, p. 26 of 63)  
8
- 9 • It is also beyond dispute that the execution of all phases of such tactical  
10 infiltration/exfiltration missions requires careful military planning and intelligence. (*See* U.S.  
11 Dept. of Defense, News Transcript: Army Special Operations Briefing, July 17, 2002,  
12 available at <http://www.defenselink.mil/transcripts/transcript.aspx?transcriptid=3590>, and  
13 pertinent excerpt appended for convenience, with following quote found at para. 2, p. 5) ("In  
14 relation to the enemy situation, there's so much planning, detailed planning that goes into  
15 flying an actual infil/exfil mission. And you have intelligence folks that are right there  
16 throughout the whole planning process, templating where enemy locations may be, how you  
17 can fly around those in the most effective manner")  
18
- 19 • The target of the combat mission in question "did not develop as planned", and the  
20 helicopters with ground forces were ordered to remain and execute the following day.  
21 (Plaintiffs' Ex. A, Docket Entry No. 80-6, p. 36 of 63) "The following day a DP (decision  
22 point) was set for 1800Z for the target to develop or to cancel the mission." (*Id.*) The  
23 mission was cancelled "for intel reasons" on 17 February 2007, and the three helicopters  
24 were to return to the base at Bagram. (Plaintiffs' Ex. A, Docket Entry No. 80-6, p. 26 of 63)  
25
- 26 • The Army investigation report shows that the return/post phase of the mission was based on a  
27 woefully erroneous weather forecast, in which the pilot of the lead MH47 helicopter noted  
28 regarding the weather forecast: "If that were the actual weather, we would have had at least

1000' AGL and 6 miles visibility the entire route." (Plaintiffs' Ex. A, Docket Entry No. 80-6, p. 36 of 63.) Similarly, an audio transcript from the subject helicopter includes sarcastic references about the erroneous weather forecast. (Plaintiffs' Ex. A, Docket Entry No. 80-4, p. 23 of 65 ("Try again mother f-cker (Analyst assumes he's commenting that the [weather] is worse than reported").) In fact, the helicopter convoy flew through severe weather conditions, in which several witnesses with substantial flying experience commented that it was "the worst weather condition I have encountered in 20 years." (e.g. Plaintiffs' Ex. A, Docket Entry No. 80-6, p. 50 of 63; *see also id.* at p. 7 of 63 ("the worst weather I've flown in. Weather rapidly degraded"); *id.* at p. 41 of 63 ("worst weather flown in ever").

- Witnesses uniformly reported that the mission encountered serious icing conditions with no visibility. (Plaintiffs' Ex. A, Docket Entry No. 80-5, pp. 58 and 60 of 66 ("The crew became aware of icing conditions ..."; "Revealed ice on the box area aprox 1 inch thick along the leading edges of AFT Pylon. Ice was also present on the #2 eng FOD screen and Eng drive shaft coalings."); *id.* p. 63 of 66 ("Post flight revealed ... Icing on the gimble of the MMR Pod which accounted for false distance readings"); Plaintiffs' Ex. A, Docket Entry No. 80-6, p. 7 of 63 ("Icing on the Rotor Blades (Halo) guns began to Ice and fod screens were Iced."); *id.* at p. 9 of 63 (Post flt found about 1 1/2" of ice on combining transmission (c-box) located FWD of rear/AFT Xmsn"); *id.* p. 37 of 63 ("We terminated our approach at about 30 feet and had no visual reference with the ground at all"); *id.* at p. 38 of 63 ("We were still flying totally obscured but I tried to land by dropping a navigation reference point and landing to a road. We could see the ground once we descended below 30 feet but we instantly became whited out because of all the snow and aborted the landing. We never saw the road we should have been over"); *id.* at p. 50 of 63 ("Heavy/severe icing to the point of 'ghost' terrain painted on radar display. Zero visibility. Zero lunar illumination in a snow storm from [redacted by military]").)

- 1 • The Army report criticizes the lack of proper weather forecasting equipment. (*id.* at, p. 39 of  
2 63 (“We need to increase the number of weather reporting points in Afghanistan”); Plaintiffs’  
3 Ex. A, Docket Entry No. 80-4, p. 33 of 65 (“In this case there are only two upper air  
4 observations w/I 600 nautical miles of the crash site (+480nm to northwest and +360 to the  
5 northeast). The limited quantity, and questionable quality (from Iran), of the inputs  
6 undoubtedly reduced model accuracy of the models”); *id.* at p. 41 of 65 (“What could be  
7 done to improve forecasting and forecasts in Afghanistan? The weather systems that would  
8 help us report and forecast here in the OEF theater would be (1) Weather radar in the north  
9 A/O. This would allow better predictability across the Hindu Kush mtns. These radars would  
10 also allow it’s [sic] information to be networked so that other users could pull form it, ... (3)  
11 more weather sensors, we have requested five more [redacted by military] sensors to be  
12 placed along already established routes. The [redacted by military] is more useful since it has  
13 better ceiling reporting, visibility a, and lightning detection capabilities”).)  
14
- 15 • The Army report also confirms that the subject MH47 helicopters are designed to and can fly  
16 under power of only one of the two engines (Plaintiffs’ Ex. A, Docket Entry No. 80-6, p. 60  
17 of 63, section 9-2-7) and that the subject MH47 “had sufficient power with one engine to  
18 execute a landing to a suitable area.” (Plaintiffs’ Ex. A, Docket Entry No. 80-2, p. 11 of 30).  
19 The investigating officer notes that based on data from the subject helicopter’s data recorder,  
20 the pilot in command “had induced a virtually unrecoverable situation”, such that the  
21 helicopter quickly entered into a dangerous “avoid” range in aircraft performance, and he  
22 questions the pilot’s decision to “pull maximum thrust and increase pitch in order to maintain  
23 the aircraft flying at a 400 ft hover rather than descending thrust or putting the nose down in  
24 order to land or increase rotor rpm.” (*id.* at pp. 12-13 of 30).  
25
- 26 • No cause of the engine failure has been determined. (*id.* at p. 11 of 30, section (a)(1)).  
27  
28

**CONCLUSION**

For the foregoing reasons, and for reasons stated in Honeywell's moving and reply memoranda and supporting papers in which Goodrich joins, Goodrich respectfully requests that this Court dismiss Plaintiffs' complaint.

Dated: June 5, 2008

MENDES & MOUNT, LLP

By: /s/ Mark R. Irvine

Mark R. Irvine

Attorneys for Defendant

Goodrich Pump & Engine Control Systems, Inc.

# APPENDIX





## U.S. DEPARTMENT of STATE

Fact Sheet  
Office of the Spokesman  
Washington, DC  
January 31, 2006

### Operation Enduring Freedom

Operation Enduring Freedom (OEF) is a multinational coalition military operation initiated in October 2001 to counter terrorism and bring security to Afghanistan in collaboration with Afghan forces. OEF operations led to the collapse of the Taliban regime and helped bring a measure of security and stability to Afghanistan for the first time in a generation.

- Operation Enduring Freedom involves troops from over 20 nations, including about 19,000 U.S. forces and about 3,100 non-U.S. troops.
- U.S. and Coalition forces continue to engage Taliban remnants and other extremists and coordinate with the Pakistani military to bolster security along the Afghan-Pakistan border.
- U.S. and Coalition Forces operate 14 of 23 provincial reconstruction teams (PRTs) in Afghanistan. The PRTs support the Afghan government through reconstruction and good governance initiatives, including projects that help Afghans rebuild damaged roads, community buildings, and wells.
- During the 2004 presidential election and the 2005 National Assembly and Provincial Council elections, U.S. and Coalition forces partnered with Afghan security forces and other international troops to provide security.

006/111

Released on January 31, 2006

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Presenter: Army Special Forces Operations Briefing

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### Army Special Forces Operations Briefing

(Media availability with veterans of operations in Afghanistan. Also participating were moderator Col. Tom Begines, Capt. Kevin Cochie, Sgt. Steven Longan, and Sgt. Brian Turner.)

Begines: Good morning. I'm Colonel Tom Begines, chief, Media Relations Division, Army Public Affairs. I'll be brief. Thanks for coming to this media availability. Today we have with us three Army Special Forces soldiers who will, as our media advisory states, describe the equipment they used in Afghanistan and talk about some of their personal experiences in the war against terrorism.

These soldiers are in Washington, D.C. to meet with members of Congress as part of the fourth annual Soldiers Systems Days on Capitol Hill. It is also the 50th anniversary of Army Special Forces, and the 20th anniversary of the Special Operations Aviation Regiment.

Captain Kevin Cochie, over here, is assigned to the 160th Special Operations Aviation Regiment based at Fort Campbell, Kentucky. He is an MH-47E pilot. He went to Afghanistan in October with the first wave of American soldiers. He was responsible for planning and coordinating Special Operations air missions. And as you know, in addition to the threat from the al Qaeda and the Taliban, the terrain and weather in Afghanistan posed special challenges for helicopter operations.

We also have two soldiers from the 5th Special Forces group, also based at Fort Campbell, Kentucky, Master Sergeant Steven Longan, over here, served in Afghanistan as an operations sergeant for an Operational Detachment Alpha (ODA), commonly known as an A-Team. He has also worked as an intelligence NCO and as a communications NCO. He served in Kandahar and the surrounding area.

Sergeant First Class Brian Turner served in Afghanistan as the communications sergeant of an A-Team from December through March, and participated in Operation Anaconda. Obviously, one of his areas of expertise is with communications equipment.

They'll be describing in detail the equipment they brought today, but let me highlight some of those items. Most obviously, to my side, we have the flight gear worn by MH-47E crew members. At the table, we have the Viper laser range finder, the multi-band intra-team radio, and other equipment.

I'll ask Captain Cochie to begin this session by narrating a five-minute video about the MH-47E, and then describing the flight equipment. And then as you ask certain -- about certain items of equipment, we'll bring them to the podium and discuss them. At some point, it will probably be best to move to one-on-one conversations. I know many of you will want to do that, and we'll do that at some point.

While these Special Forces soldiers are going to describe some of their personal experiences in Afghanistan, particularly with regard to their use of equipment, for reasons of operational security, there are some aspects of their missions they can't discuss. We have a need to protect special tactics, techniques and procedures because we don't want our adversaries to know how we operate.

Captain Cochie.

Cochie: Good morning. The purpose of this video that we're going to show you, and you can go ahead and get it rolling, is to really show you some of the unique characteristics of the MH-47E. There's a lot of people out there that do not know the full capabilities of this aircraft. It's an incredible piece of equipment, and it has been incredibly successful in the Afghanistan theater.

So this video really just shows a lot of pictures of the aircraft, some video clips, some FLIR video from over in Afghanistan. And it really shows some of the special things we do. I'll note some of those things, and then I'll answer some questions, if you want to know how we use the aircraft in the combat environment.

But bottom line, there's a big difference between an MH-47E and a CH-47D. The big, conventional army flies CH-47Ds. There's a couple hundred of these aircraft. We have only 21 MH-47E helicopters, and they are all assigned to the 160th. The major difference is, is if you put them up next to each other, our aircraft is a little bit fatter because we have bigger fuel tanks on both sides of the aircraft. That's the first difference. We have an aerial refueling probe. We're the only unit in the Army that aerial refuels. So it basically gives us an indefinite range on the aircraft.

We have the FLIR, forward-looking infrared, which allows us to see much better at night; improves our situational awareness, and also assists in getting through some bad weather, because the FLIR tends to see through fog and dust better visually than you can through the night vision goggles.

And then the most notable piece of equipment, which I'd really like to touch on, is the multi-mode radar. It's terrain following terrain avoidance radar. Again, we're the only aircraft in the Army that has this piece of equipment. This one piece of equipment really helped us get teams on the ground in Afghanistan when there became a growing need to get the Green Berets and the Special Forces A Teams on the ground.

I can tell you a story about how we used the aircraft initially to get guys in. Last fall, the weather -- as the Colonel said, the Taliban was our greatest threat, but the weather was our greatest challenge in hazard. Last fall, the weather in the Afghanistan theater was so horrible -- horrible sand storms, dense fog, weather systems. Virtually, when we started trying to get teams on the ground, we ran into close to zero visibility weather every single night and ended up turning the aircraft back. We had never penetrated zero visibility weather at terrain flight altitudes. And what I mean by terrain flight altitudes is we fly around at two to three hundred feet above the ground. Fast movers, they're up at 15,000, 20,000 feet, so it's really not an issue. Two hundred, 300 feet, you have towers, wires, mountain ranges, -- those kind of things to fly through. The multi-mode radar allows us to penetrate weather and basically fly in the clouds, in the mountains in the terrain flight altitudes.

So it came to a point, in the growing need to get these guys on the ground, that we finally just penetrated the weather with the radar, and the radar allowed us to carry the first several teams to their locations, landing zones in Afghanistan, and get them on the ground. Once we did it the first time, we did it night after night until we -- we kept putting teams in. And that was really one of the turning points of the war in the beginning stages, was getting these guys on the ground so that they could direct the bombs where they needed to go.

So, you guys can take a look at that video. Right here, [pointing to a mannequin in a flight suit] my friend, this is the flight gear that we wear while we fly. The only difference between what we wear and what the crew members in the back wear is that in the colder environment, this face-plate right here, they wear that over their face because a lot of times they're hanging out the side of the aircraft with the mini-guns or directing the hoist, the rescue hoist and that kind of stuff, so that just protects their face. The pilots up front fly with this -- basically the standard equipment: survival vest; we have a belt that has different equipment around your waist, survival equipment, and then our 9-millimeter strapped to our leg. The horse collar around the neck is a flotation device, if we would have to put the aircraft in water. It's just a precautionary safety device.

So, having said all that, I can answer any questions that you may have.

Q: Could you tell us where you're from? And also, describe what those guys were doing who were hanging -- five or six guys hanging from --

Cochie: Okay. I'm from Fort Campbell, Kentucky. The 160th --

Q: You don't want to give your hometown?

Cochie: Oh. I'm from Ashland, Ohio. The 160th, which is probably important to note, is based out of Fort Campbell, Kentucky. That's where the regiment and two battalions of our units are based out of. We also have one battalion based at Savannah, Hunter Army Airfield in Savannah. And then we have five Chinooks forward-based in Korea, and we have a company of Black Hawks in Puerto Rico.

So -- and then the guys that were hanging, that's called STABO. It's -- these guys can probably say what it stands for. But that's just another means of inserting or getting guys out of a landing zone that we couldn't -- if we could not land the helicopter on the ground.

Q: Captain, some of the zones you guys went into, some hot LZs, and some of the planes took fire, but I don't think you lost any to combat. How well is this bird at taking, you know, enemy fire?

Cochie: The MH-47E is very good at taking some pretty serious combat damage and it will still fly. We did lose one aircraft to enemy fire in the theater. We started off -- initially the purchase on the MH-47 was, I believe, 24 aircraft, and we have 21 now. We lost one in training. I'm sure you're aware of the one we lost in the Philippines, and then we lost one in Afghanistan.

Q: A constant problem in the theater was the brownouts on landing.

Cochie: Right.

Q: Your radar -- it will get you into the LZ, but it doesn't do anything as far as finding the ground on that last move. Have you all experimented with any kind of altitude radar or something like that, anything that would help in that last few seconds?

Cochie: Yes. On the MH-47E -- there are so many differences between that and the CH-47. Our systems, our cockpit is completely different as well. We have what's called a complete glass cockpit. There's four TV screens in the cockpit, and that's all of our systems, all of our attitude indicators, they're all on these TV screens. Whereas a regular helicopter that the conventional Army flies have all the analog gauges -- the steam gauges is what we call them -- in their cockpits.

What's neat about the glass cockpit is that we can pull up on any of our TV screens any of our systems -- communications systems, navigation systems. One of our systems we have is altitude hold, and mostly for your question, we have what's called a "hover page," and that page allows us to hover in one spot, but on brownout and dust landings, it allows us to -- when the aircraft comes in, it's really an art to bring the aircraft down at the perfect speed so that the dust cloud is just engulfing you, hopefully, as the aft wheels touch down. Now, that's not always easy when you have a flight of maybe two or three aircraft and everybody's blowing dust on everyone else. But the hover page allows you, once the dust cloud engulfs you, allows you to keep the aircraft going in a straight direction, and then you can gauge -- it also will tell you how fast you are going. So the idea is to have the dust cloud engulf you right as your aft wheels touch down. You transition to that hover page to keep the aircraft straight, and then slow the aircraft and put it down on the ground.

Q: How about knowing your distance off the ground so you know exactly when you're --

Cochie: We have a system called Radar Altitude Hold, a radar altimeter. And that just basically bounces a beam off the ground and tells us how far we are off the ground.

Q: Is it accurate enough for that purpose?

Cochie: Absolutely.

Q: I mean, normally, you know, it's got a margin of error.

Cochie: Very accurate. Normally, that -- and that's real good over water because it's just -- you have a set distance off the water. But on ground it works just as well.

Q: Could you tell us about the first time between having zero visibility and pulling out and then making the decision, "Well, we're just going to have to land." What was that first landing for you like?

Cochie: The first -- well, more so the first mission than anything. When we first started conducting operations where we're intentionally going to penetrate the Afghanistan airspace, to intentionally put guys on the ground -- before that we had executed a mission called Combat Search and Rescue. We were there to pull pilots out that got shot down. It just didn't happen because they were having tremendous success with avoiding any anti-aircraft for the fast movers.

So, with the transition in mission to actually put guys on the ground in Afghanistan was a pretty steep learning experience because the weather was so bad at that time. So for us, as a unit, and for 5th Group, who we were working with, it was a tremendous success that first night when we finally got the first teams on the ground.

Now, in training, the multi-mode radar, the terrain-following radar, is a relatively new piece of equipment, within the last couple of years. So in the training environment -- we live in Kentucky, so we'll go over to Knoxville, in that area, and do our training. But in the training environment, you always have your margins of safety that you're training in. So we always had visibility, and ceiling and visibility minimums that we, to even go train using the radar. So, to go into combat is one thing, then to penetrate weather that's almost down to zero visibility without ever having done it in training was a pretty steep learning curve for all of our crews.

Q: Are they going to change now any of the training rules so that -- obviously this is going to be a requirement in the future.

Cochie: Right.

Q: You're going to need to train to it. This has demonstrated that. So now, are you going to take this home and suggest --

Cochie: We've taken a lot of our lessons learned home in how we can improve our training. That's probably the biggest lesson learned on how we might change something with our training. But overall, we've done really nothing but validate the training that we give our crews and our pilots. It's neat to talk about how awesome this aircraft is all day long, it's just such a special piece of equipment. But what's truly special about the 160th and the Night Stalkers is the training that we give our soldiers. Number one, we have a deliberate assessment process to bring the right guys into this organization. We're very small. And then the training that we give our pilots and crewmembers is absolutely superb.

One of the neat things -- we were talking the other day with the 5th Group guys, is that we will -- we are based at Fort Campbell, Kentucky, but the amount of training we do there is not a whole lot. You look at a conventional Army aviation unit, they have -- the 101st, for example, they have their own aircraft and they have their own infantry guys, all those soldiers right on Fort Campbell, so they can do their training on Fort Campbell. We typically go to a location where we work, with our -- the guys we work with. Fifth Group is right there at Fort Campbell with us, but they're only, one small element of the people that the 160th works with. We work with all the Special Forces groups, the NAVSPEC warfare people. So that requires us to go to them for their training.

So we do -- that's one of the neat things about our organization, when we need to train with SEALs, we'll go to where the SEALs are and do over-water training with them. When we want to conduct desert operations with 5th Group or the

other Special Forces elements, we'll go to where they're at -- Fort Bragg. We'll take 5th Group guys and we'll go out to Nevada and out to the actual environment where we want to conduct that training. It's not a whole lot of simulated training. We do so much realistic training in the actual environment that we want to improve our training in.

Begines: And, I'd just say, Lisa, there's always a careful balance to be struck between realistic training and the safety of the soldiers. And while you want soldiers to be fully prepared for every contingency they might meet in combat, you also don't want soldiers to die or be injured in training. And so commanders pay a great deal of attention to risk assessments and exactly how training is conducted. They want to do it to the highest possible standards to prepare soldiers for combat, but the bottom line is they don't want to get soldiers killed in training.

Q: I understand that. Can you articulate what it is, this lesson you learned was, though?

Cochie: The major lesson learned with the terrain-following radar is that training with a weather minimum of, say, 500-foot altitude, 500 feet and two miles visibility is a stretch to go into combat and penetrate zero visibility using the radar.

Q: Could you address what difficulties altitude poses for the helicopters?

Cochie: Altitude, whenever you go to a higher altitude, -- you have to sacrifice something -- gross weight or fuel. And fuel translates to gross weight. The mass gross weight for the 47E is 54,000 pounds. The special thing about this helicopter is that we can take this helicopter up to its max gross weight and still fly at extreme altitudes. We were cresting 16,000, 17,000 ridge lines in Afghanistan, while sacrificing very little gross weight.

Q: Captain, were your missions totally in Afghanistan or did you go into Pakistan as well?

Cochie: Our missions were primarily in the Afghanistan theater. So, where we based out of were numerous places, within and outside of Afghanistan, but I would be hard-pressed to, name exact locations where we've conducted missions.

Q: Could you explain a little bit about how your logistics and maintenance works? I know that when you're working in stressing environments that causes even wonderful helicopters to have problems.

Cochie: Right.

Q: So how is that working out? Are you--

Cochie: I'm glad you asked that question, because our maintenance -- it's kind of weird, because when we're in the training environment, it always seems like the helicopters hold up better when we're on the road, training at an off-site other than at Fort Campbell. And that really translated right into Afghanistan as well. When you take a helicopter -- when you take a helicopter somewhere, especially Afghanistan, you're going to take the whole slew of maintenance support personnel with it. So, we have a complete 200-plus man company that's responsible for maintaining these aircraft. When they get to a location, they have nothing else to focus on but those aircraft, so there are very little distracters as far as keeping the maintenance up.

Afghanistan -- incredibly harsh environment; the dust, the altitude, routinely flying them at max gross weight, very hard on the airframes. But the maintenance guys have done an impeccable job at maintaining them, keeping them flying. We've never dropped a mission due to a maintenance problem -- not once. And that's -- that's really -- I mean, that's such a testament to -- our youngest soldiers, 19 to 25-year-old soldiers working and turning wrenches on these aircraft. Very impressive.

Q: Is that ever or just in Afghanistan?

Cochie: In Afghanistan.

Q: You talked about working with the SEALs as well as the Army special ops. When you're in Afghanistan, is there any difference in your operating procedure depending on who you've got in the back, or do they pretty much all operate the same?

Cochie: Well, as far as the 160th is concerned, we are the Special Operations Aviation component of the Army. But, we work exclusively with Special Operations ground forces. To us, I mean, Green Berets, Navy SEALs, what not, to us, they're our ground force, and we're going to give them all the same support.

Q: What kind of a situational awareness feature do you have in this aircraft?

Cochie: I'm sorry?

Q: Situational awareness, how much information do you have in the cockpit about your other troops or enemies and like that?

Cochie: Well, situational awareness as far as the environment, the aircraft is impeccable. You have so many systems to aid you in keeping the aircraft in the right direction and heading towards the target. Our motto is, "on target, plus or minus 30 seconds," and we live and die by that motto, even in the harshest weather and the harshest terrain. The Echo model Chinook has so many systems that allows the pilots to maintain and to live by that model.



So, our navigation systems are completely redundant. It's a complete digital cockpit. We have the ability to plan our flight routes on a laptop computer, download all the information to a card, take it out to the aircraft, upload all the information. We have a moving map display, so you have a map in the cockpit but you also have a digital one on display in the cockpit. So there's a lot of things there to help with your situational awareness while you're flying an actual mission.

In relation to the enemy situation, there's so much planning, detailed planning that goes into flying an actual infil/ exfil mission. And you have intelligence folks that are right there throughout the whole planning process, templating where enemy locations may be, how you can fly around those in the most effective manner.

So it's just a great process, and it's a great airframe to maintain that situational awareness.

Begins: Barb, in the back.

Q: What lesson did the 160th learn from its loss in Afghanistan? Were there lessons learned from that incident? Could you help us --

Cochie: I'd be reluctant to -- and, of course, that was Operation Anaconda. And I'd be reluctant to talk about the lessons learned from Anaconda because, they're still formulating all those lessons learned.

I can tell you that aircraft was shot down in daylight. So, that lesson learned equates to a lesson learned in Somalia, and a lesson learned in any of our -- when we lose aircraft. We need to conduct operations at night. When we start conducting operations in the daytime, is when the risk factor of losing an aircraft is going to go up exponentially.

Q: Is there anything you can do to mitigate the daylight situation or just not really? Is that really --

Cochie: Planning. Careful planning. The best mitigation is to not do it, unless, there's no other option. We're going to -- we're going to execute a mission when we're told, but the historical facts are there that when we operate at night, we're going to be much safer. We fly low level at night, and it keeps us out of trouble.

Begins: And I'd just say that Central Command did release a report on May 24th on Takur Ghar and they covered that situation. And there was an acknowledgment of the risk at the time, but there were soldiers on the ground in trouble, and the decision was made to deploy the Quick Reaction Force, well aware that it was under a higher degree of risk. It was a balancing of risks.

Cochie: And I'll tell you, to caveat that, we as soldiers, as pilots, we're not -- we're never going to question when we're told to go, whether it's day or night. That's -- those are questions and decisions that have to be decided by the echelons above the guys flying and operating the helicopters.

Q: As you look back, though, also, is there any lessons learned that you can help us understand from flying into an environment where you have fixed mortar positions essentially above you, and how to deal with something like that, which clearly was a factor in this case?

Cochie: I'm really reluctant to speculate on lessons learned like that. We, again, fly -- the best opportunity is to fly at night. And this airframe is -- the biggest lesson learned is that we need more 47Es; 21, we're stretched very thin. And they're very expensive, obviously, but the return on investment for this airframe, for what it can do for us, the Special Operations ground force, is so incredible.

Q: Two quick admin-type questions. In the video you showed us, is the black and white or any of that actually Afghanistan?

Cochie: Yes. There's some footage of a dust landing that's actually Afghanistan. The picture -- the video clip going through the mountains is Northern Afghanistan. And what's interesting to note about that is -- I mean, those are -- that those altitudes on that video are 14,000, 15,000 feet, and our crews transversed through those ridge lines on several missions before they ever actually saw those. When they -- the first time our crew saw those mountains, they were -- it was a rude awakening that they had actually been flying through those mountains on several missions.

Q: The infrared, though, is not Afghanistan?

Cochie: No. Some of the infrared, the IR taken through NVG goggles, those are Afghanistan.

Q: And could you spell your last name for us?

Cochie: C-O-C-H-I-E.

Q: I-E?

Cochie: H-I-E. C-O-C-H-I-E.

Q: How did you find the Stinger threat there? There was lots of talk here before you went in that that was going to be the major problem.

**CERTIFICATE OF SERVICE**

I, MARK R. IRVINE, hereby certify that on June 5, 2008, I caused to be electronically filed a true and correct copy of the attached **Joinder And Reply Of Defendant Goodrich Pump & Engine Control Systems, Inc., In Support Of Defendant Honeywell International Inc.,** **Re: Motion To Dismiss Plaintiffs' Complaint** with the Clerk of the Court using CM/ECF, which will send notification that such filing is available for viewing and downloading to the following counsel of record for all parties:

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8 Executed at Los Angeles, California, on this 5th day of June, 2008.

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